

Docket No.: 046080-0033



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 20277
Nobuhiro MISHIMA, et al.	:	Confirmation Number: 6059
Application No.: 09/585,339	:	Tech Center Art Unit: 2624
Filed: June 02, 2000	:	Examiner: James A. Thompson
For: IMAGE FORMING APPARATUS, POWER SUPPLY APPARATUS, AND METHOD OF SUPPLYING POWER		

**TRANSMITTAL OF APPEAL BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

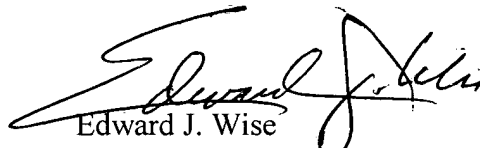
Sir:

Submitted herewith is Appellant's Appeal Brief in support of the Notice of Appeal filed February 21, 2006. Please charge the Appeal Brief fee of \$500.00 to Deposit Account 500417.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. 1.17 and 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal of the final rejection of claims 1-20, filed September 1, 2005.

**I. REAL PARTY IN INTEREST**

The real party in interest is MINOLTA CO., LTD.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any related appeals and interferences.

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### **III. STATUS OF CLAIMS**

Claims 1-2, 4-16 and 18-23 are pending in this application and claims 1-2, 4-16 and 18-23 have been finally rejected. It is from the final rejection of claims 1-2, 4-16 and 18-23 that this Appeal has been taken.

### **IV. STATUS OF AMENDMENTS**

No amendment has been filed subsequent to the issuance of the Final Office Action dated September 21, 2005. According to the Advisory Action dated January 26, 2006, the Request for Reconsideration submitted January 12, 2006 was not considered persuasive and, hence, the final rejection of claims 1-2, 4-16 and 18-23 was maintained.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates to an image forming apparatus that receives image data from an external device, such as a digital camera, and forms an image. In a conventional arrangement where a user directly connects a digital camera (supplying image data) to an image forming apparatus using a fixed cable, it is desirable to constantly supply power to each of the elements, including a fixing unit in the image forming apparatus, and to constantly keep the temperature of the fixing roller at a fixing temperature in order to print out speedily. However, this results in a large amount of power being wasted by the heater for the fixing roller and the like.

A proposed solution to this problem of the conventional arrangement is to provide a sleep mode where, after a certain period of time has elapsed without printing, the sleep mode is applied to stop supplying power to the units, including those where a relatively large amount of

electricity is consumed. Upon receiving image data from the external device, the image forming apparatus cancels the sleep mode and supplies power to the units. While this saves electricity, it is inconvenient for the user since it takes a relatively long time to increase the temperature of the fixing unit to a fixing temperature when the sleep mode is canceled upon receiving image data from the external device.

Another problem is that the external device (e.g., the digital camera) sometimes stops working due to a secondary battery in the external device having insufficient amount of electrical charge. As a result, it is desirable that the user, when away from home, be able to recharge the secondary battery at, for instance, the same location as the image forming apparatus. However, conventional image forming apparatus cannot recharge the secondary battery of the external device. This is inconvenient for the user also.

The present invention addresses and solves such problems associated with such conventional image forming apparatus that receives image data from an external device (e.g., the digital camera).

Referring to the description on pages 9-19 of the specification and Figs. 1-3, Fig. 1 depicts a digital camera 5 connected to a printer 1 (image forming apparatus) via a cable 6. Digital camera 5 is driven by a secondary battery. Digital camera 5 records image data on a recording medium, such as a flash memory, and outputs the image data to be printed via cable 6. In addition, when power is supplied from printer 1 via cable 6, the secondary battery for the digital camera 5 is recharged using the power.

Printer 1 includes printer main body 2 and coin box 3, which is connected to printer main body 2 via cable 4. Printer main body 2 further includes printer unit 210, external device connecting interface unit 220, power switch 230, power source unit 240, and main body control

unit 250 for controlling printer unit 210 and power source unit 240.

Fig. 2 shows external device connecting interface unit 220, which includes connector 221 to which plug 61 of cable 6 is inserted into and removed from, and interface controller 222. To operate interface controller 222, power is supplied to interface controller 222 from auxiliary power source unit 243 (Fig. 3) in power source unit 240. Interface controller 222 includes bias voltage output port TPBIAS (e.g., 1.86V), a pair of I/O (input/output) ports TPA+ and TPA-, a pair of I/O ports TPB+ and TPB-, an image data output port, and an external device connecting signal output port. I/O ports TPA+ and TPA- differentially transmit strobe signals and receives data, and I/O ports TPB+ and TPB- differentially transmit data and receives strobe signals. The image data output port outputs image data that has been received from digital camera 5 to main body control unit 250. The external device connecting signal output port outputs an external device connecting signal 223, which indicates whether the external device is connected, to main body control unit 250. Digital camera 5 is equipped with an external device connecting interface unit that has the same structure as external device connecting interface unit 220. Cable 6 is a 6-conductor cable composed of a pair of the power source lines and two pairs of signal wires which transmit serial data and strobe signals as differential signals.

Via circuitry disclosed and described in the specification, when plug 61 of cable 6 *is not* connected to connector 221, I/O ports TPB+ and TPB- of interface controller 222 are pulled down. On the other hand, when plug 61 of cable 6 *is* connected to connector 221, I/O ports TPB+ and TPB- of interface controller 222 are pulled up to about 1.86V. Interface controller 222 checks whether I/O ports TPB+ and TPB- are pulled up at regular intervals. When I/O ports TPB+ and TPB- are pulled up, interface controller 222 judges that digital camera 5 *is* connected. Interface controller 222 sets the external device connecting signal 223 at "1" and outputs the

external device connecting signal 223 to main body control unit 250 from the external device connecting signal output port. On the other hand, when I/O ports TPB+ and TPB- are pulled down, interface controller 222 judges that digital camera 5 *is not* connected. Interface controller 222 sets the external device connecting signal 223 at "0" and outputs the external device connecting signal 223 to main body control unit 250.

Fig. 3 shows the structure of power source unit 240. In Fig. 3, power source unit 240 includes input unit 242, auxiliary power source unit 243, recharging output control unit 244, and main power source unit 245. When power switch 230 is ON, input unit 242 outputs the current supplied from commercial AC power source 241 to auxiliary power source unit 243 and main power source unit 245 via a noise filter, or the like. Auxiliary power source unit 243 converts the current that has been supplied by input unit 242 into a predetermined DC voltage by a switching operation, and supplies the 5V voltage as the auxiliary power to main body control unit 250, coin box 3, and recharging output control unit 244 as long as the power switch 230 is ON.

Recharging output control unit 244 includes a current detector and a switching device. When a signal indicating "1" is sent as a recharging output permission signal 281 from main body control unit 250, recharging output control unit 244 directs the switching device to operate and output the input DC5V *as it is* as the recharging power to external device connecting interface unit 220. The DC5V that has been output to external device connecting interface unit 220 (Fig. 2) is sent to the digital camera 5 via the pin VP of connector 221 and cable 6, and the secondary battery of digital camera 5 is recharged with the sent DC5V.

For convenience, Claim 1 is presented below with elements read on the specification and drawings.

An image forming apparatus (printer 1, page 9, line 11; Fig 1) to which an external device (5, page 9, line 13; Fig. 1) transmitting image data is to be connected, the image forming apparatus comprising:

a detecting unit (220, page 10, line 2 to page 12, line 4; Figs. 1, 3) for detecting whether the external device (5) has been connected to the image forming apparatus (1), the detecting unit including

a connector (221, page 11, line 26; Fig. 2) configured to receive a plug (61, page 11, line 26 to page 12, line 1; Fig. 1) of a cable (6, page 12, line 1; Fig. 1) attached to the external device (5), and

an interface controller (222, page 12, line 2 to page 15, line 7; Fig. 2) connected to the connector (221), the interface controller (222) outputting a first logical level signal (223 at "1", page 14, line 23 to page 15, line 1; Fig. 2) when the plug (61) is inserted into the connector (221) and outputting a second logical level signal (223 at "0", page 14, line 15, lines 1-7; Fig. 2) when the plug (61) is not inserted into the connector (221);

a printing unit (210, page 10, line 1 to page 11, line 16; Fig. 1); and

a control unit (250; page 14, line 23 to page 15, line 7 and page 19, lines 10+; Figs 1 and 4) for controlling, in response to the first logical level signal output by the interface controller (222), the printing unit (210) so as to prepare for image forming according to the image data from the external device (5), wherein

the image data is set from the external device (5) to the image forming apparatus (1) via the cable (5).



## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

i) Whether claims 1 and 2 are unpatentable under 35 U.S.C. § 103 for obviousness predicated upon Stephenson (USPN 5,757,388), filed December 16, 1996 and issued on May 26, 1998 in view of Amoni [et al.] (USPN 5,884,086), filed April 15, 1997 and issued on March 16, 1999.

ii) Whether claim 4-9 and 11-14 are unpatentable under 35 U.S.C. § 103 for obviousness predicated upon Stephenson (USPN 5,757,388) in view of Amoni [et al.] (USPN 5,884,086) and Yokoyama (USPN 5,694,226) filed June 20, 1995 and issued December 2, 1997.

iii) Whether claim 10 is unpatentable under 35 U.S.C. § 103 for obviousness predicated upon Stephenson (USPN 5,757,388) in view of Amoni [et al.] (USPN 5,884,086), Yokoyama (USPN 5,694,226) and Kawai [et al.] (USPN 5,805,780) filed May 25, 1994 and issued on September 8, 1998.

iv) Whether claims 15, 16 18, 19 and 23 are unpatentable under 35 U.S.C. § 103 for obviousness predicated upon Stephenson (USPN 5,757,388) in view of Amoni [et al.] (USPN 5,884,086), Kawai [et al.] (USPN 5,805,780), Meese [et al.] (USPN 4,532,418) filed December 21, 1984 and issued on July 30, 1985 and *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

v) Whether claims 20-22 are unpatentable under 35 U.S.C. § 103 for obviousness predicated upon Stephenson (USPN 5,757,388) in view of Amoni [et al.] (USPN 5,884,086), Kawai [et al.] (USPN 5,805,780) and Meese [et al.] (USPN 4,532,418).

## VII. ARGUMENT

### **Patentability of independent claims 1, 2, 8, 11, 15, 20, 21 and 23 over the applied prior art references**

In the invention recited in independent claim 1, a printer initiates a preparatory operation involving the printer when a camera has been connected to the printer. In this regard, the Examiner indicates that Stephenson (USPN 5,757,388) discloses the control unit of claim 1 (see p. 8, lines 4-10 of the Final Office Action dated September 21, 2005).

However, Stephenson states that, "It is advantageous for the camera 10 and the ink jet printer 12 to indicate the change in camera display 18 from a display to a data transmission mode. This is accomplished by a sensor on the camera detecting printer presence" (see col. 3, line 65 - col. 4, line 1 of Stephenson). Stephenson discloses that a preparatory operation involving the camera display 18 is performed according to the output from an interface controller.

Even when the description at column 4, lines 1-6 of Stephenson [Timing signals transmitted through active socket 20 and active latch 24 are used to synchronize display modulation and the printer data reception. Active latch 24 is used to signal start of transmission. Transmission can be synchronized by embedding timing signals into the camera display signal.] is considered, Stephenson does **NOT** disclose a structure for performing a preparatory operation involving a printer (a control unit for controlling ... the printing unit so as to prepare for image forming), as in the invention recited in claim 1. Furthermore, Stephenson discloses that the camera performs the preparatory operation according to the output from the interface controller, and does not disclose a structure for a printer performing a preparatory operation, as in the present invention.

On the other hand, Stephenson states in relation to printer operations that, “The operator signals the start of printing using printer electronics 30” (see col. 3, line 44 of Stephenson). Using active latch 24 to signal start of *transmission* is not consistent with the fact that it is the operator that signals the start of printing using printer electronics 30. Thus, *the printer operations are clearly performed as a result of instructions input by an operator, and not according to output from an interface controller*. Amoni [et al.] does not disclose this feature also as the Examiner relies upon Amoni [et al.] as disclosing transmitting digital data directly through the use of a directly connected cable.

Accordingly, Stephenson and Amoni [et al.] do not disclose the control unit of the present invention, and a person of ordinary skill in the art would not have found the present invention obvious over Stephenson and Amoni, considered alone or in combination.

Regarding the invention recited in independent claim 2, the Examiner indicates that in Stephenson, power supply to the printer is controlled according to the output from an interface controller (see p. 10, line 27 - p. 11, line 2 of the Final Office Action dated September 21, 2005).

However, there is no specific disclosure of a power supplying unit in Stephenson, or that power *to the printing unit* is supplied by such specific power supplying unit according to whether the interface controller outputs the first logical level signal or the second logical level signal. Stephenson merely discloses that a latch driver 26 permits the securing and release of the camera (see col. 2, line 60-64 of Stephenson). This portion of Stephenson is simply directed toward preventing the camera from being removed while the printer receiver device 32 is reading the camera display, and has absolutely nothing to do with power supply. In Stephenson, printer operations are performed as a result of an input instruction from an operator, as mentioned above. Since there is no specific disclosure in Stephenson regarding a specific power supplying

unit supplying power to the printing unit, it can realistically be presumed also that power to the printer is supplied according to whether an ON/OFF switch for a power supply of the printer is turned ON. Accordingly, independent claim 2 is patentable over Stephenson and Amoni [et al.] as they do not disclose or suggest the control unit of the invention recited in independent claim 2.

Independent claim 8 requires a control unit for controlling power supplying to the fixing unit according to whether the interface controller outputs the first logical level signal or the second logical level signal and independent claim 11 requires a control unit for controlling the switching unit (for the fixing unit) so as to switch the fixing unit from the standby mode to the fixing mode when the interface controller outputs the first logical level signal. As noted above, in Stephenson, no specific power supplying unit is disclosed for either a printing unit and/or a fixing unit, but printer operations are performed as a result of an input instruction from an operator.

It should be noted that since Stephenson discloses an inkjet printer, a fixing device is not provided and consequently, there is absolutely no need to perform a preparatory operation that takes time and which is required in the present invention.

Thus, there is no disclosure in Stephenson of a control unit for controlling power supplying to the fixing unit according to whether the interface controller outputs the first logical level signal or the second logical level signal (claim 8) or a control unit for controlling a switching unit so as to switch the fixing unit from the standby mode to the fixing mode when the interface controller outputs the first logical level signal (claim 11). Yokoyama is relied upon by the Examiner as disclosing a fixing unit, but does not disclose or suggest the specific function recited for the control units of claims 8 and 11. Furthermore, since Stephenson discloses an inkjet printer, there is no reasonable basis as to why a person of ordinary skill in the art would

ever look to the fixing unit of Yokoyama to be used in Stephenson. The fact that the Examiner suggest such combination is evidence of the fact that the present rejection is an example of improper reconstruction of the claimed invention using the present disclosure as a guide.

Accordingly, independent claims 8 and 11 are patentable over Stephenson, Amoni and Yokoyama as they do not disclose or suggest the control unit of the invention recited in independent claims 8 and 11. In addition, the only apparent motivation of record for the proposed modification of the arrangement of Stephenson using the fixing unit of Yokoyama to arrive at the claimed inventions is found in Applicants' disclosure which, of course, may not properly be relied upon to support the ultimate legal conclusion of obviousness under 35 U.S.C. §103. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 227 1 USPQ2d 1593 (Fed. Cir. 1987)..

Regarding the invention recited in independent claims 15 (a charge collecting unit for collecting a charge ... for an amount of the power that has been supplied to the external device), independent claim 20 (a charge collecting unit for collecting a charge for an amount of the power that has been supplied to the external device), independent claim 21 (a charge collecting step for collecting a charge for an amount of the power that has been supplied by the power supply apparatus) and independent claim 23 (a charge for the amount of power that has been supplied to the external device is collected if power is supplied to the external device without image forming being performed by the image forming apparatus), the Examiner relies upon the electric vehicle related invention of Meese [et al.], stating that it would have been obvious to combine the electric vehicle related invention Meese [et al.] with Stephenson, Amoni and Kawai [et al.] to meet the terms of the claims.

However, Meese [et al.] relates to *a charging meter and method for electric vehicles*, permitting charging of an electric vehicle at a parking location in response to use of a charge

card and storing charging and parking information for subsequent retrieval to facilitate billing to the owner of the charge card. In contrast, the invention recited in independent claim 23 is directed to an image forming apparatus that includes a charge collecting unit for collecting a charge for an amount of power that has been supplied to an external device (transmitting image data) connected to the image forming apparatus.

Meese [et al.] is clearly directed to a nonanalogous art as that of the other applied references, as well as that of the inventions recited in independent claims 15, 20, 21 and 23. *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992); *Ex parte Dussaud*, 7 USPQ2d 1818 (BPAI 1988). Accordingly, it cannot be said that one having ordinary skill in the relevant art would have been charged with knowledge of Meese [et al.].

The Examiner contends that Meese [et al.] is reasonably pertinent to a particular problem with which Applicants were concerned, namely the collection of money in exchange for the provision of electricity.

However, this expression of the particular problem is too expansive. Supplying of electricity in exchange for money in one art does not mean a person of ordinary skill in the art would appreciate that such feature could be modified and applied to a nonanalogous art. If this is the case, *it should be a simple matter for the Examiner to cite a reference* that evinces that a person of ordinary skill in the art would have applied the *charging meter and method for electric vehicles* of Meese [et al.] to charging for power supplied to an external device connected to an image forming unit where the power is supplied via a power supplying unit of the image forming device. No such reference has been cited by the Examiner.

The Examiner should recognize that even if the prior art *could* be modified so as to result in the combination defined by the claims, the modification would not have been obvious unless

the prior art suggested the desirability of the modification. *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986). In the absence of such a prior art suggestion for modification of the references, the basis of the rejection is no more than inappropriate hindsight reconstruction using Appellants' claims as a guide. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967).

Since neither Stephenson, Amoni [et al.] nor Kawai [et al.] disclose or suggest adapting (using) the charging meter and method for electric vehicles disclosed in Meese [et al.] to an image forming unit to which a camera (transmitting image data) is connected, the requisite motivation required to establish a *prima facie* case of obviousness is nonexistent. Therefore, the Examiner's rejections of independent claims 15, 10, 21 and 23 are an example of the use of impermissible hindsight considerations to reject the claims.

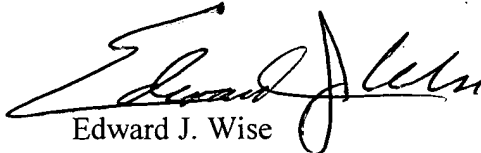
### **Conclusion**

It should, therefore, be apparent that the Examiner did not establish a *prima facie* basis to deny patentability to the claimed inventions. Based upon the foregoing, Appellants, therefore, submit that the imposed rejections under 35 U.S.C. § 103(a) of claims 1 and 2 as being unpatentable over Stephenson in view of Amoni [et al.], of claims 4-9 and 11-14 as being unpatentable over Stephenson in view of Amoni [et al.] and Yokoyama, of claim 10 as being unpatentable over Stephenson in view of Amoni [et al.], Yokoyama and Kawai [et al.], of claims 15, 16, 18, 19 and 23 as being unpatentable over Stephenson in view of Amoni [et al.], Kawai [et al.], Meese [et al.] and *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965), and of claims 20-22 as being unpatentable over Stephenson in view of Amoni [et al.], Kawai [et al.] and Meese [et al.] should not be sustained as the Examiner has not established a *prima facie* case of obviousness.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account and please credit any excess fees to such deposit account.

Respectfully submitted,

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## CLAIMS APPENDIX

1. (On Appeal) An image forming apparatus to which an external device transmitting image data is to be connected, the image forming apparatus comprising:

a detecting unit for detecting whether the external device has been connected to the image forming apparatus, the detecting unit including

a connector configured to receive a plug of a cable attached to the external device, and

an interface controller connected to the connector, the interface controller outputting a first logical level signal when the plug is inserted into the connector and outputting a second logical level signal when the plug is not inserted into the connector;

a printing unit; and

a control unit for controlling, in response to the first logical level signal output by the interface controller, the printing unit so as to prepare for image forming according to the image data from the external device, wherein

the image data is set from the external device to the image forming apparatus via the cable.

2. (On Appeal) An image forming apparatus comprising:

a detecting unit for detecting an external device, the external device transmitting image data, the detecting unit including

a connector configured to receive a plug of a cable attached to the external device, and

an interface controller connected to the connector, the interface controller outputting a first logical level signal when the plug is inserted into the connector and outputting a second logical level signal when the plug is not inserted into the connector;

a power supplying unit for supplying power;

a printing unit that is driven by the power from the power supplying unit and forms an image according to the image data from the external device; and

a control unit for controlling the power supplying to the printing unit by the power supplying unit according to whether the interface controller outputs the first logical level signal or the second logical level signal, wherein

the image data is set from the external device to the image forming apparatus via the cable.

4. (On Appeal) The image forming apparatus according to Claim 2, wherein the printing unit includes:

an image forming unit for forming the image on a sheet according to the image data; and

a fixing unit for fixing the image on the sheet by applying heat.

5. (On Appeal) The image forming apparatus according to Claim 4, wherein

the control unit controls an amount of the power supplied to the fixing unit so as to change the power amount according to whether the interface controller outputs the first logical level signal or the second logical level signal.

6. (On Appeal) The image forming apparatus according to Claim 4, wherein the control unit controls an amount of the power supplied to the fixing unit so as to keep the fixing unit at a first temperature that is lower than a second temperature for fixing the image on the sheet when the interface controller outputs the second logical level signal, and at the second temperature when the interface controller outputs the first logical level signal.

7. (On Appeal) The image forming apparatus according to claim 2, wherein the control unit controls the power supplying to the printing unit when the interface controller outputs the first logical level signal.

8. (On Appeal) An image forming apparatus to which an external device transmitting image data is to be connected, the image forming apparatus comprising:

a detecting unit for detecting whether the external device has been connected to the connector, the detecting unit including

a connector configured to receive a plug of a cable attached to the external device, and

an interface controller connected to the connector, the interface controller outputting a first logical level signal when the plug is inserted into the connector;

an image forming unit for forming an image on a sheet according to the image data that has been transmitted from the external device;

a fixing unit for fixing the image on the sheet by applying heat, wherein the fixing unit is an electric heater; and

a control unit for controlling power supplying to the fixing unit according to whether the interface controller outputs the first logical level signal or the second logical level signal, wherein

the image data is set from the external device to the image forming apparatus via the cable.

9. (On Appeal) The image forming apparatus according to Claim 8, wherein the external device is a camera for taking a picture and generating the image data, the external device including a connecting unit that is to be connected to the connector.

10. (On Appeal) The image forming apparatus according to Claim 8, further comprising a fee-charging unit for charging a user a fee for forming an image.

11. (On Appeal) An image forming apparatus to which an external device transmitting image data is to be connected comprising:

a fixing unit for fixing an image that has been formed on a sheet by applying heat;

a switching unit for putting the fixing unit into a fixing mode, in which the fixing unit is kept at a first temperature for fixing the image on the sheet, and a standby mode, in which the fixing unit stands by and a temperature of the fixing unit is lower than the first temperature;

an external device detecting unit for detecting whether the external device has been connected to the image forming apparatus, the external device detecting unit including

a connector configured to receive a plug of a cable attached to the external device, and

an interface controller connected to the connector, the interface controller outputting a first logical level signal when the plug is inserted into the connector; and

a control unit for controlling the switching unit so as to switch the fixing unit from the standby mode to the fixing mode when the interface controller outputs the first logical level signal, wherein

the image data is set from the external device to the image forming apparatus via the cable.

12. (On Appeal) The image forming apparatus according to Claim 11, wherein the switching unit interrupts a current to the fixing unit in the standby mode.

13. (On Appeal) The image forming apparatus according to Claim 11, wherein the switching unit keeps the fixing unit at a second temperature, which is lower than the first temperature, in the standby mode.

14. (On Appeal) The image forming apparatus according to claim 11, further comprising a judging unit for judging whether an image forming operation has been completed, wherein

the control unit controls the switching unit so as to switch the fixing unit from the fixing mode to the standby mode when the interface controller outputs the second logical level signal and when the judging unit judges that the image forming operation has been completed.

15. (On Appeal) An image forming apparatus, comprising:

a power supplying unit for generating power that is to be supplied to an external device transmitting image data;

an interface for connecting the external device to the image forming apparatus, wherein the image data from the external device is received via the interface and the power from the power supplying unit is supplied to the external device via the interface;

a judging unit for judging whether a charge is to be collected;

a printing unit;

a control unit for controlling power supplying by the power supplying unit and image forming by the printing unit according to a judging result from the judging unit, wherein the control unit has the printing unit form an image according to the image data from the external device that has been received via the interface; and

a charge collecting unit for collecting a charge for the image forming and a charge, separate from the charge for the image forming, for an amount of the power that has been supplied to the external device.

16. (On Appeal) The image forming apparatus according to Claim 15, wherein the control unit has the printing unit form the image and has the power supplying unit supply the power when the judging unit judges that the charge is to be collected.

18. (On Appeal) The image forming apparatus according to Claim 15, wherein the charge collecting unit includes a handling unit into which money is input, the handling unit

accumulating the input money, wherein the judging unit judges that the charge is to be collected when money has been input into the handling unit.

19. (On Appeal) The image forming apparatus according to Claim 18, wherein the handling unit includes first and second handling units, and the control unit permits the image forming when money has been input into the first handling unit and permits the power supplying when money has been input into the second handling unit.

20. (On Appeal) A power supply apparatus that supplies power to an external device that transmits image data comprising:

a power supplying unit for generating the power that is to be supplied to the external device;

a connector for connecting the external device to the power supply apparatus, wherein the image data from the external device is received via the connector and the power from the power supplying unit is supplied to the external device via the connector;

a printing unit for forming an image according to the image data from the external device that has been received via the connector; and

a charge collecting unit for collecting a charge for an amount of the power that has been supplied to the external device.

21. (On Appeal) A method of supplying power for a power supply apparatus to which an external device is to be connected, the power supply apparatus including a printing unit for receiving image data from the external device and forming an image, the power supply apparatus supplying power to the external device, the power supplying method comprising:

a connection detecting step for detecting whether the external device has been connected to the power supply apparatus;

a judging step for judging one of that the power is to be supplied to the external device which has been connected to the power supply apparatus and that the image is to be formed according to the image data from the external device;

a power supplying step for supplying the power to the external device when the judging step has judged that the power is to be supplied to the external device;

an image forming step where the printing unit forms the image when the judging step has judged that the image is to be formed; and

a charge collecting step for collecting a charge for an amount of the power that has been supplied by the power supply apparatus and a charge, separate from the charge for the amount of the power that has been supplied, for image forming by the printing unit.

22. (On Appeal) The power supplying method according to Claim 21, wherein it is judged that money has been put for one of power supplying and image forming at the judging step.



23. (On Appeal) An image forming apparatus, comprising:

a power supplying unit for generating power that is to be supplied to an external device transmitting image data;

an interface for connecting the external device to the image forming apparatus, wherein the image data from the external device is received via the interface and the power from the power supplying unit is supplied to the external device via the interface;

a judging unit for judging whether a charge is to be collected;

a printing unit;

a control unit for controlling power supplying by the power supplying unit and image forming by the printing unit according to a judging result from the judging unit, wherein the control unit has the printing unit form an image according to the image data from the external device that has been received via the interface; and

a charge collecting unit for collecting a charge for the image forming and a charge for an amount of the power that has been supplied to the external device, wherein

a charge for image forming is collected if image forming is performed without power being supplied to the external device, and

a charge for the amount of power that has been supplied to the external device is collected if power is supplied to the external device without image forming being performed by the image forming apparatus.

**EVIDENCE APPENDIX**

NONE

**RELATED PROCEEDINGS APPENDIX**

NONE